

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number: 14-103

PROJECT INFORMATION

Project Title: Charlie Moore Water System Phase 1

Region and Game Management Unit: Unit 27

Local Habitat Partnership Committee (LHPC):
Safford HPC

Was the project presented to the LHPC?
YES[x] NO[]

Has this project been submitted in previous years? YES[] NO[x]

If Yes, was it funded? YES[] NO[] → **Funded HPC Project #(s):**

Project Type: Water Development

Brief Project Summary: Convert current pump from gas pump to solar array and extend pipeline for future new pipelines, storage tanks, and drinkers. Water improvements will also provide for better dispersal and management of domestic livestock, which will lead to improved overall forage conditions throughout the project area.

Big Game Wildlife Species to Benefit: Rocky Mountain elk, mule deer, bear, turkey, and nongame species

Implementation Schedule (Month/Day/Year):

Project Start Date: 04/01/2014

Project End Date: 04/01/2015

Environmental Compliance:

NEPA Completed: Yes[x] No[] N/A[]

Projected Completion Date: 03/01/2014 done by USFS

State Historic Preservation Office - Archaeological Clearance:

Yes[x] No[] N/A[]

Projected Completion Date: 03/01/2014 done by USFS

Arizona Game and Fish Department EA Checklist: N/A[x]

To be Completed by: _____

Projected Completion Date: USFS Complete NEPA

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 8,330

Cost Share or Matching Funds: \$ 9,346

Total Project Costs: \$ 17,676

PARTICIPANT INFORMATION

Applicant (please print):
Carol Telles – District
Ranger

Address:
397240 AZ 75

E-mail:
ctelles@fs.fed.us

Telephone: 928-687-8612	Duncan, AZ 85534	Date: 03/14/2014
AGFD Contact and Phone No. (If applicant is not AGFD personnel): Steve Najar; 928-965-5066		
Project has been coordinated with: Apache-Sitgreaves NF, AZGFD, Spur Ranch LLC, Safford HPC		

NEED STATEMENT – PROBLEM ANALYSIS:

- Water throughout area is limited to stock tanks. Stock tank water is unreliable, as it is based on weather patterns and cycles. This has led to concentration and use of forage and resources to a higher level around water sources than in the rest of the available area. The water system will provide more reliable water to wildlife in the area as well as improving overall habitat conditions through effective dispersal and management of livestock.

PROJECT OBJECTIVES:

- Improve water availability for Rocky Mountain Elk, Mule Deer, Whitetailed Deer, Turkey, and other wildlife species.
- Improve livestock distribution through better water availability, thus improving browse and herbaceous forage conditions throughout the entire area.
- Provide for a reliable year-round water system that will benefit all game and nongame species that is not dependent upon rainfall and climate patterns.

PROJECT DESCRIPTION AND STRATEGIES:

- Install 1 solar pump system to service numerous water sources.
- Install 2 miles of pipeline.

PROJECT LOCATION:

Township: T10S

Range: R21W

Section: 31S

LAND OWNERSHIP AT THE PROJECT SITE(S):

(if the project area is private property, please state specifically and provide the landowner's name)

- USDA Forest Service; Apache-Sitgreaves National Forest; Clifton Ranger District

*IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP
or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE
DEPARTMENT?*

YES[] NO[] N/A[x]

HABITAT DESCRIPTION:

- The area consists mostly of Pinyon-Juniper Savannah Eco-type. Vegetation consists of Pinyon Pine, One Seed Juniper, Alligator Juniper, Oak, Blue Grama, Hairy Grama, Sideoats Grama and Curly Mesquite. The average elevation is 6300 ft.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

- 1 Solar System (collector, pump plus 3d party labor): \$8330

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

Phase 1:

- Forest Service Matching Funds: 1 mile pipeline or 5,280 feet at \$0.53 per foot: \$2,798
- Permittee

Matching Funds: 1 mile pipeline or 5,280 feet at \$0.53 per foot: \$2,798

Labor and Equipment:

- Labor cost for installation of 2 men at combined rate of \$40 per hour for 10 hours per day for 3 days: \$2400
- Equipment: Tractor/flatbed/pickup at \$350 per day for 3 days (\$1,050) plus fuser at \$100 per day for 3 days (\$300). Other miscellaneous equipment, no charge. Total: \$1,350.
- Total Permittee Contribution: \$6,548.

Phase 2:

- Forest Service Matching Funds: 3.25 miles pipeline or 17,160 feet at \$0.53 per foot or \$9,094.80; 1 3,000 storage tank at \$1750 and 3 750 gallon poly drinkers at \$350 each; the total is \$11,924.80.
- Permittee Labor and Equipment:
 - Labor cost for installation of 2 men at combined rate of \$40 per hour for 10 hours per day for 5 days: \$4,000
 - Equipment: Tractor/flatbed/pickup at \$350 per day for 5 days (\$1,750) plus fuser at \$100 per day for 5 days (\$500). Other miscellaneous equipment, no charge. Total: \$2,250.
 - Total Permittee Contribution: \$6,250.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES[] NO[x] N/A[]

PROJECT MONITORING PLAN:

The Forest Service will be monitoring long term vegetation trends on a five to ten year cycle. Annual monitoring will be conducted by the permittee and/or the Forest Service. Annual monitoring will consist of data related to livestock utilization, distribution, actual use, and production.

PROJECT MAINTENANCE:

Water system will be maintained by the permittee. Water will be available to wildlife year-round.

PROJECT COMPLETION REPORT TO BE FILED BY:

USDA Forest Service; Apache-Sitgreaves NF; Clifton Ranger District; Rangeland Management Department

WATER DEVELOPMENT PROJECTS *(please use the worksheet below):*

TREE CLEARING/REMOVAL PROJECTS *(please use the worksheet below):*

ARIZONA GAME AND FISH DEPARTMENT **WATER DEVELOPMENT WORKSHEET**

PROJECT TITLE: Charlie Moore Water System

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**
N/A
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
N/A
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**
☐2-4 ☐4-6 ☐6-8 ☐8-10 ☐10-12 ☒12-14 ☐14-16 ☐ >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**
YES ☐ (please complete #5 below) NO ☒ (skip #5 below)
- 5) **For the accessible, perennial water source nearest this project:**
Name of water source:
Type of water source (catchment, spring, dirt tank):
Ownership of water source: USFS
Distance in miles from project:
- 6) **Is the target wildlife species a result of transplant efforts?** YES ☐ NO ☒
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**
None
- 8) **Please provide the following information about access to the proposed site:**
Type of access (mark one): ☐2x4 vehicles ☒4x4 only ☐foot only**
**If foot access only: Distance in miles: _____ Approximate hiking time: _____
-- Does access to this site require crossing private or tribal lands? YES ☐ NO ☒
-- Please describe any restrictions to public access:
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
 - 1” plastic poly pipe 200psi
 - Solar System with collector, pump, 2” metal pipe
- 10) **Was a site visit completed?** Yes ☒ No ☐
If Yes, please list personnel that attended and date.
Tom Paterson (Permittee) & Ben Goodin (USFS) June 2013
Steve Najar (AGFD), November 2013

Project Overview

The system will operate off the Charlie Moore Spring system and a 25,000 gallon water storage tank near the spring that is gravity fed from the spring. The plan is replace the existing gas powered pump at the storage tank with a solar array and pump water from the storage tank. The solar pump will provide more reliable water to the already existing Charlie Moore storage tanks, and drinkers (Phase 1). Another water system (Phase 2) will be installed on the Sunflower Mesa. The Sunflower water system will include 3.25 miles of pipeline, a storage tank, and three drinkers. The total project will include 5.25 miles of pipeline, 1-3,000 gallon storage tank, 3-750 gallon poly drinkers, and 1 solar array. Upon completion of the project, year round water will be provided to 11,625 acres of land along the state line of Arizona and New Mexico. The solar pumping system will greatly enhance availability of drinking water throughout the area even when livestock are not present and enhance available forage through increased distribution of livestock use.

Phase 1

Phase 1 will include the 1 solar array and 2 miles of pipeline. See attached map for project location. See attached maps for project location.

Phase 2

Phase 2 will include the Sunflower water system. The Sunflower water system includes 3.25 miles of pipeline, 1-3,000 gallon storage tank, and 3-750 gallon poly drinker. See attached map for project location.









